

## U.S. Army Engineer Research and Development Center

# **System-wide Modeling, Assessment, and Restoration Techniques (SMART) Program**

What is SMART? SMART is a strategic research and development program developed by the U.S. Army Corps of Engineers for implementing System-wide Modeling, Assessment, and Restoration Technologies into the planning, construction, operation, and maintenance activities.

Why SMART? As the Corps increases activities in sustainable watershed and water resources management, a higher demand exists on current and new tools for ecosystem management, restoration, and decision-making. SMART is designed to build and deliver these tools for effective system-wide applications.

What are the products of One major SMART product will be a Web-based decision support **SMART?** framework. The framework will allow access to information. databases, numerical models, index models, habitat models, and socio-economic models. Coupled or linked models will also be developed for system-wide assessments. The framework will be flexible to allow individual applications of tools, information, and decision-making software or more complex applications involving the coupled or linked models. Since applications will vary, the system will be developed for "customization" as needed by the client for continued applications. Interim products or outcomes will be produced each year.

What are the benefits of SMART will provide the Corps with significant new capabilities in SMART? applying an integrated suite of environmental modeling and assessment tools to fully address environmental mission needs at watershed and basin scales. This suite of capabilities will increase effectiveness in partnering with other agencies and private stakeholders, reduce costs associated with restoration of degraded resources, and encourage sustainable management of our resources.

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